

### REMARKS

This is a Response to the final Office Action mailed on April 19, 2010. No fee is due in connection with this Response. The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 3712036-444 on the account statement.

Claims 1, 3, 6-11 and 26-27 are pending in the application. Claims 2, 4, 5, 12-25 and 28-32 were previously withdrawn from consideration. Claims 4 and 24 were previously canceled. In the Office Action, Claims 1, 3, 6-11 and 26-27 are rejected under 35 U.S.C. §103(a). In response, Claims 1, 3, 6-11 and 26-27 have been amended. The amendments do not add new matter. In view of the amendments and/or for at least the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

Claims 1, 3, 6-11 and 26-27 have been amended to correct informalities and to better clarify the scope of the claims. Accordingly, Applicants respectfully request that the claim amendments be entered even though the Office Action is at final.

In the Office Action, Claims 1, 3, 6-11 and 26-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 7308172 to Kaisha ("*Kaisha*") in view of U.S. Patent No. 5,424,331 to Shlyankevich et al. ("*Shlyankevich*") and further evidenced by the publication to Kirschmann ("*Kirschmann*"). Applicants respectfully traverse the rejection for at least the reasons set forth below.

Independent Claims 1 and 6 recite, in part, calcium absorption enhancers comprising calcium, at least one isoflavone and egg white, wherein the ratio of egg white/calcium is between 20 to 60 by weight. In contrast, Applicants respectfully submit that the cited references alone or in combination fail to disclose or suggest each and every element of independent Claims 1 and 6 and the skilled artisan would have no reason to arrive at the claimed invention in view of the cited references.

Applicants have surprisingly found that giving calcium and isoflavones in parallel with egg white considerably enhances calcium absorption. Indeed, Applicants have surprisingly found that by giving egg white together with calcium, the absorption of calcium was significantly enhanced. Although not wishing to be bound by theory, Applicants believe that the

phenomenon may be due to egg whites and isoflavones stabilizing the emulsion of calcium, preventing it from precipitating, or egg whites transformed into peptides during digestion, and these peptides help to keep calcium soluble in the intestine.

Further, isoflavones (e.g., soy isoflavones) are weak estrogens. They are 1000 fold less potent than natural estrogen. However, in women consuming a soy diet, circulating plasma levels of isoflavones are 1000 fold higher than estradiol and result in physiological effects. By analogy with estrogen, it is postulated that soy isoflavones, which bind to estrogen receptors ("ERs"), though with a higher affinity for ER $\beta$  than ER $\alpha$ , may modulate gastrointestinal absorption and renal tubular reabsorption of calcium.

*Kaisha*, *Shlyankevich* and *Kirschmann* alone or in combination fail to disclose or suggest a number of elements of the present claims. *Kaisha*, *Shlyankevich* and *Kirschmann* alone or in combination fail to disclose or suggest a calcium absorption enhancer comprising calcium, at least one isoflavone and egg white as required by Claims 1 and 6. *Kaisha*, *Shlyankevich* and *Kirschmann* alone or in combination also fail to disclose or suggest a calcium absorption enhancer comprising a weight ratio of egg white/calcium between 20 to 60 as required by Claims 1 and 6.

Moreover, the skilled artisan would have no reason to combine the cited references in the absence of hindsight. *Kaisha* discloses food/drink containing casein phosphopeptide ("CPP") to promote the absorption of calcium in a person having low calcium absorption ability. Although *Kaisha* discloses the use of egg powder and calcium to make a cookie dough, *Kaisha* fails to disclose or suggest any isoflavone. Moreover, *Kaisha* fails to disclose the advantageous properties of either egg white or isoflavones for enhancing calcium absorption.

*Shlyankevich* discloses the use of a soybean diet for prevention of osteoporosis. Nevertheless, *Shlyankevich* fails to disclose the use of any egg white or the advantageous properties of egg white for enhancing calcium absorption. *Kirschmann* discloses the weight of specific egg components/products and does not teach or suggest any advantage for using egg whites with respect to calcium absorption.

None of the cited references teaches or suggests the use of egg white for enhancing calcium absorption, especially in combination with an isoflavone or at the claimed range. Rather, at most, *Kaisha* lists egg white as one of a number of ingredients of cookie dough while

*Kirschmann* merely discloses egg white to list essential amino acids associated with it. Based on *Kaisha*, *Shlyankevich* and *Kirschmann*, the skilled artisan would have no clue that egg white can be used to enhance calcium absorption and would have no reason to "optimize" the weight ratio of egg white/calcium between 20 to 60 in accordance with the present claims. In addition, based on the cited references, the skilled artisan would have no reason to believe that the combination of egg white and an isoflavone can be used to significantly enhance calcium absorption in accordance with the present claims.

What the Patent Office has done is to rely on hindsight reconstruction of the claimed invention. Applicants respectfully submit that it is only with a hindsight reconstruction of Applicants' claimed invention that the Patent Office is able to even attempt to piece together the teachings of the prior art so that the claimed invention is allegedly rendered obvious. Instead, the claims must be viewed as a whole as defined by the claimed invention and not dissected into discrete elements to be analyzed in isolation. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983); *In re Ochiai*, 71 F.3d 1565, 1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995). One should not use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d at 1075. (Fed. Cir. 1988).

For the foregoing reasons, Applicants respectfully request reconsideration of the above-identified patent application and earnestly solicit an early allowance of same. In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Respectfully submitted,

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